TESTIMONY OF

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TO THE U.S. SENATE SELECT COMMITTEE ON INDIAN AFFAIRS

FIELD HEARING ON RURAL ENERGY CRISIS

THE CULTURAL CENTER
BETHEL, ALASKA

AUGUST 28, 2008

WAQAA, WELCOME

To the Chair, Senator Lisa Murkowski of the Select Committee on Indian Affairs, I welcome you back to Bethel, the hub of the Yukon-Kuskokwim Delta. The Association of Village Council Presidents (AVCP) is the non-profit social service entity that represents the 56 federally recognized Tribes that make up this region.

THE YUKON KUSKOKWIM AVCP CALISTA REGION

We are essentially a roadless area and are virtually island communities dependent on air and river travel for all our transportation, goods and services needs. Travel during the summer months is only by plane or boat, and in the winter months, by snow machine or ice road on the river systems. Our supplies are shipped in by daily airfreight service all year long, and by local barge service during the summer months, when the river is ice-free. We have come a long way from our ancestral way of living, but while we still live off the land in practicing Subsistence, we are unfortunately dependent on extremely costly and ineffective energy sources.

ENERGY CRISIS AFFECTS AMERICA: CRUSHES VILLAGES

The cost of living in our remote villages would not only startle, but frighten people living elsewhere in this country who think they have it bad. While they are truly affected to the point where they make certain changes in their lifestyles and habits, we are literally being

crushed by the rising price of diesel fuel and the ripple effect is has on living in remote areas mostly hovering in and around the poverty level.

CURRENT PRICES AS OF JUNE 25, 2008
The Lower Kuskokwim averages:

$5.35 per gallon for gas
$4.45 per gallon for heating fuel

The Upper Kuskokwim averages:
$6.30 per gallon for gas
$6.60 per gallon for heating fuel

The Lower Yukon averages:
$5.91 per gallon for gas
$4.85 per gallon for heating fuel

The Middle Yukon averages:
$6.41 per gallon for gas
$7.15 per gallon for heating fuel

We all know that energy is a very hot topic in this election year, especially in other rural areas in the Lower 48 States. Republican Marilyn Musgrave in Colorado's Fourth District faces a tough race against Democrat Betsy Markey. While Ms. Markey opposes drilling for oil in ANWR, Representative Musgrave is traveling up there this week to decide the matter for herself. Imagine, a Congresswoman from a small district in Colorado's job may be on the line for what she decides to do with an Alaskan energy source. The same goes for the Governor's race in Missouri and for many other challenges across the country.

But coming back to our State, more importantly our region, we are in dire need of improved, affordable, maintainable and sustained power. Just earlier this month, with a visit here by Senator Ted Stevens and his dear friend from across the aisle, Senator Daniel Inouye, Stevens asserted he wanted to help us cultivate our own energy. He said he'd like to direct profits from increased oil and gas exploration to pay for renewable energy from sources such as wind and water.

Our winters are brutal, the winds and elements buffet our aging and poorly constructed early BIA / HUD homes, commercial properties and public / Tribal facilities. Energy rating upgrades for the older facilities will make the most immediate and sustainable impact on energy costs. Our housing authorities are charged with keeping up with improving and building more Arctic adequate homes for our people, business owners and City / Tribal entities are stressed with the upkeep of dilapidated, outmoded buildings.

It does not even matter that soaring oil prices have engorged Alaska's treasury, it has come back to haunt our rural villages. Even with the "Resource Rebate" the State

approved bonus of $1,200 along with the Permanent Fund Dividend (PFD) for each resident to help relieve some of the economic burden, our people expect things to get much worse. Last years fuel prices in our communities were on average 60 cents higher than the U.S. average. With each successful seasonal fuel shipment, the costs are most certainly expected to rise. Our first snow is barely two months away and we are going to have a critical winter.

According to a University of Alaska Anchorage study published in May, rural Alaskans will spend 40% of their annual income on energy this winter compared with 4% for the average Alaska household. The relief checks from the states' royalty surplus is a nice gesture, but it does not solve the reality of our energy crisis.

Boats and four-wheelers are used to hunt. In some cases some of our hunters even use planes. If it weren't for our ability to live off the land (even though outfitting our hunting trips comes at a price) we would be hurting a lot more than we show. But many of our communities do not even have roads or vehicles, so fuel costs for transportation aren't necessarily even a factor in our energy crisis, it comes down to the cost of keeping our homes, schools and buildings warm and lit.

Recently, the AVCP Executive Board adopted a resolution declaring an energy crisis to demand that the State take steps to help reduce fuel prices for utilities and consumers. This resolution followed a similar action by the Alaska Village Electric Cooperative (AVEC) that proposed the State take measures to help keep the delivered cost of fuel for utilities at $10.00 per MM/BTU and a cap for other fuels at $12.50 per MM/BTU.

FUEL PRICE AND OTHER ENERGY COSTS AND USE

Prices for residential heating oil and regular gasoline increased over 100% since 2007 in many of our villages and the estimation does not even include taxes. The news media recently reported the AVEC fuel bill (which serves 53 small villages in the western part of the state) went up to $26 million from $14 million last year.

Village residents are paying about $300 a month in electric bills, a rate increase is likely to amount to an unaffordable 1/3rd to half. With the average household income of only $17,500, many families are unable to maintain their livelihood and support their households. Locally owned utilities face power shut-downs and brown-outs throughout the winter in order to conserve fuel and save on costs.

SAMPLE OF FUEL COSTS PER VILLAGE (TUNDRA DRUMS 1/08)

The price of gasoline and heating oil in the Yukon-Kuskokwim Delta is sometimes twice that of prices in Anchorage and Fairbanks. Villages are ranked by the cost of heating oil, from highest to lowest.

Village	Vendor	Gasoline	Heating oil
Pilot Station	Pilot Station Inc. Native Store	$6.08	$5.98
Gambell	Gambell Native Store	$6.02	$4.89
Marshall	Marshall Enterprises	$4.83	$4.88
Savoonga	Savoonga Native Store	$5.76	$4.83
Kongiganak	Qemirtalek Store	$4.48	$4.45

For comparison:
Anchorage Various $3.06 $3.20
Fairbanks Various $3.07 $3.18

SOURCE: Telephone survey by The Tundra Drums

SAMPLE ELECTRIC / UTILITY
Akiachak Native Community Electric Co.
Population 644
Total Fuel Used (gallons) 181,453
Total Cost of Fuel/Gallon $596,325.38
Avg Price of Fuel/Gallon $3.29
Total Diesel Generated kWhs 1,800,172

Chevak (AVEC)
Population 916
Total Fuel Used (gallons) 180,785
Total Cost of Fuel/Gallon $345,846.13
Avg Price of Fuel/Gallon $1.91
Total Diesel Generated kWhs 2,287,638

Lime Village Electric Utility
Population 28
Total Fuel Used (gallons) 9,721
Total Cost of Fuel/Gallon $51,666.35
Avg Price of Fuel/Gallon $5.31
Total Diesel Generated kWhs 101,016

TAKING CHARGE: BIENNIAL ENERGY PLAN 2008-2010
Shortly after Placer Dome began exploration in the mid-1990's Calista Corporation worked with other regional organizations and helped establish Nuvista Light and Electric Cooperative in order to conduct energy feasibility studies for the region and the development project at Donlin Creek. An energy study was completed by Nuvista in 2002 and was followed up with a feasibility study in 2004. Nuvista is now fully engaged in this energy planning and development process for the AVCP Calista region. AVCP has partnered with the Calista Corporation, AVCP Regional Housing Authority, the Yukon Kuskokwim Health Corporation, AVEC, Chaninik Wind Group, MKEC, Kwethluk Power and the Lower Yukon Delta to administer the Nuvista Light and Electric Cooperative, Inc. (NLEC.) We are pleased to note that the Chaninik Wind Group received a $4.8 million state grant in 2008 to develop a wind development project to determine the feasibility of a subregional wind farm project to serve four villages and will also determine the wind resource availability for expansion and possible build-out to other parts of the region.

The regional wholesale cooperative has outlined energy priorities for adequate supply of reliable and affordable energy that is secure from outside economic influences. Our target is to help tribal and community members conserve and properly utilize energy sources, develop clean energy resources and promote renewable energy and economic

development. *The final approved copy of the 50-page plan will be submitted for the record as a supplement before it is closed.*

ENERGY APPROPRIATE PLANNING PER SUB-REGION

The NLEC will develop multiple, sub-regional proposals for the region which will identify specific renewable energy projects based upon appropriate resources available in each sub-region. So far, we have identified priorities in planning and developing regional wind energy projects along the eastern Bering Sea coast, the lower Kuskokwim coast, the Bethel area; and potential build-out from these areas to other nearby communities.

Despite the internal problems our Southwestern neighbors of St. Paul Island suffers in offering electric power *versus* wind-generated power to its 450 residents, no one can dispute the brilliance of TDX Corporation's investment in a single wind turbine that alone provided enough power and heat to TDX facilities on the island (including the airport, an industrial complex and a 90-bed hotel.) Ten years ago $1 million was a hefty investment, but the wind system was equipped with two diesel backups that allowed the Native corporation to sever itself from the city power grid with power to spare. We want to see that autonomy and lower available rates and surplus in our areas.

There are two wind generation projects developed and managed by the Alaska Village Electric Cooperative (AVEC) located in Toksook Bay on the Eastern Bering Sea Coast, and Kasigluk which is 20 miles west of Bethel. The Toksook Bay operation entails three 100 kW Northern Power Systems Northwind 100 turbines. For two years, this wind-diesel system also supplies power to nearby Tununak and Nightmute. This system is estimated to displace 52,000 gallons of diesel fuel per year. The Kasigluk operation also entails 3 100 kW Northern Power Systems Northwind 100 turbines that also supplies power to nearby Nunapitchuk and Old Kasigluk.

In the heavily treed areas of the Middle Kuskokwim and Lower Yukon regions, Biomass projects could provide community facility heating needs with biomass boilers, and wood chippers that would provide feed stock for these and a variety of community facility and home heating wood boilers.

In-Stream Turbines in other areas of the Kuskokwim and Yukon Rivers and its more powerful tributaries are also a concept worth investigating; as well as ocean wave energy potential along the eastern Bering Sea coast. There is a geothermal potential at the NYAC mine hot springs along with in-river hydroelectric potential for the nearby communities.

We have also identified two potential targets for hydrocarbon exploration. On top of supporting more energy sourcing exploration, the plan considers an inter-tie to the railbelt based upon the economic development potential for projects such as the Donlin Creek Gold Mine Development Project.

Developing Fish Oil and Bio Diesel from our shore-based and floating salmon processors on the Kuskokwim and Lower Yukon should be determined since the AEA conducted successful tests of raw fish oil/diesel blends in a 2.2 MW 2-cycle Fairbanks Morse engine

generator using 50-50 raw fish oil-diesel blend for power production. Currently AEA is working with University of Alaska Fairbanks (UAF) Arctic Energy Technology Development Laboratory, Alaska Department of Environmental Conservation, and the National Park Service to test performance of bio-diesel in generators at UAF and Denali National Park.

Solid wastes offer potential for providing additional local heating of public facilities. Waste heat energy should be incorporated into each community biomass wood energy project to determine feasibility for combined operations. The Sitka Waste-to-Energy facility has provided heat to nearby Sheldon-Jackson College. The Fairbanks Memorial Hospital operated a small onsite heat recovery incinerator for over a decade.

REGIONAL ENERGY COALITION FOR (BULK) COST SAVINGS

Immediate and imperative action calls for the development of a regional energy coalition that includes all the utilities, major electrical consumers and fuel operators in the region. Such a coalition would enable regional electrical utility and fuel agreements, in order to achieve energy cost savings and efficiencies. Bulk Fuel Purchases is brought up as an immediate short-term issue that needs to be addressed presently. A regional bulk fuel summit has been called for to address the fuel price situation. Bringing together the major fuel buyers and users to consolidate fuel purchases may enable to reduction of fuel prices.

A bulk fuel cooperative that would be made up of the most solid government and service infrastructures in the region (such as the school districts, electric utilities, village corporations and other fuel buyers) should create a negotiating and purchasing power.

OIL & GAS EXPLORATION ARE CONDITIONALLY GREEN LIGHTED

Tribes for the first time had have recently rescinded their long-standing resolve to banning oil and gas exploration. The change of heart may come in the face of the energy crisis; however, the technologies have dramatically changed since the destructive and crude exploration and discovery process first threatened our perception of land and Subsistence food source safety. Along with pollution concerns, respect for the rights and privileges of each landowner /stakeholder directly involved in the utilization and development of renewable resource energy on their property is also imperative. NLEC will cooperate with affected landowners and stakeholders concerning policies and procedures for utilization and development of renewable resource energy projects on their property.

WHAT THE STATE SHOULD AND CAN DO

The State of Alaska is encouraged to provide a renewable resource deployment assessment of the region based upon a MM/BTU cost. This mandate will help us ascertain the development and deployment of renewable energy projects based upon available renewable resources in the region. Should the feasibility and infrastructure of certain technologies be made available or possible under State financing, local entities can seek purchasing power to take-over energy distribution and management.

A continuation of the State of Alaska Power Cost Equalization Program and improving its qualifying requirements to include schools and other government facilities affected by the current energy crisis would address immediate and dire needs and current budget constraints.

The State of Alaska should create a Department of Energy cabinet office that includes regional representation for direct support, training and technical assistance.

The State should establish a dedicated Renewable Energy Deployment / Energy Efficiency Equipment Loan & Grant Fund in coordination with statewide and local banking and financing institutions.

The AVCP Calista Region supports the planning, development and utilization of North Slope gas for rural Alaskan communities.

The creation of more oil refineries in rural outposts (much like those in Flint Hills or Nikiski) to meet heating fuel, gasoline, diesel, aviation fuel, and propane needs in a way that minimizes costly shipment demands.

IN CLOSING

We thank the Committee on Indian Affairs for coming all the way from Washington, D.C. to address a very critical issue in a very remote and challenging part of the country during an energy crisis that affects us all. Alaska may be only one State out of the many you serve to hear our needs and attempt to address our concerns, but we are grateful and earnest in helping you build the record that will hopefully result in actions.

I understand that some members of the Alaska Legislature and other concerned citizens and business owners from throughout the State are in attendance today, and I hope that we have adequately presented answers and solutions to the questions you came here with. Alaska is a massive state with innumerable natural resources and alternative energy options that we should be striving hard to develop and utilize. Protecting our way of life, in the face of developing more responsible energy use and consumption, should be possible in this day and age. We look forward to working with you to continue to press this issue, and seek solutions to make day to day living possible in one of the most unique parts of the world.